

WE CLAIM:

1. A multi-heatsink integrated cooler for direct cooling of at least two electronic components comprising at least two heatsinks with heat-exchanging means and housings with inflow and outflow openings and one common blower, wherein:

(i) each of said heatsinks is located independently in tight contact with the surface of one of said electronic components;

(ii) said housings of all said heatsinks are hydraulically connected in a common system of airflow between said heat-exchanging means of all the heatsinks and the inside space of said blower.

2. The cooler as claimed in claim 1, wherein said housings of the heatsinks are connected by at least one sealing element from the elastic material located in the clearance between nearest parts of said housings thus compensating the differences in locations and tolerances.

3. The cooler as claimed in claim 1 further comprising the radial blower located overlapping at least one of said heatsinks so that an inlet of said blower is coincided with the outflow opening of said common system of airflow.

4. The cooler as claimed in claim 3, wherein said blower is located directly on the surface of one of said heatsinks overlapping at least one another heatsink so that an axis of rotation of its impeller is perpendicular to the surfaces of said heatsinks.

5. The cooler as claimed in claim 3, wherein said blower is located in a recess made in said common system of airflow.

6. The cooler as claimed in claim 3, wherein said blower is located overhanging the area with said heat-exchanging means of the heatsinks so that at least 10% of the area of its inlet is located above the area of said common system of airflow without said heat-exchanging means.

7. The cooler as claimed in claim 6, wherein 25 – 45% of the area of said inlet is located above the area without said heat-exchanging means.

8. The cooler as claimed in claim 3, wherein said cooler further comprises at least one sealing element from the elastic material located in the clearance between the surfaces of said heatsink (heatsinks) and said blower facing each other in contact with both said surfaces in at least part of said overlapping area so that all said clearances are sealed.

9. The cooler as claimed in claim 8, wherein said sealing element (elements) is made from the thermal-conducting material and is in thermal contact with heat-exchanging means of said heatsink so it serves as heat-exchanging element.

ABSTRACT OF THE DISCLOSURE

A multi-heatsink integrated cooler for direct cooling of at least two electronic components comprises at least two heatsinks with heat-exchanging means and housings with inflow and outflow openings and one common blower. Each of the heatsinks is located independently in tight contact with one of said electronic components. The housings of all said heatsinks are hydraulically connected in a common system of airflow between said heat-exchanging means of all the heatsinks and the inside space of said blower by at least one sealing element from the elastic material located in the clearance between nearest parts of said housings thus compensating the differences in locations and tolerances. The cooler comprises the radial blower located overlapping at least one of said heatsinks so that an inlet of said blower is coincided with the outflow opening of said common system of airflow. Said blower is located directly on the surface of one of said heatsinks overlapping at least one another heatsink.